

**IN THE UNITED STATES DISTRICT COURT
WESTERN DISTRICT OF TENNESSEE
WESTERN DIVISION**

ANGLEFIX, LLC, and THE UNIVERSITY)
OF NORTH CAROLINA)
Plaintiffs,)
v.)
WRIGHT MEDICAL TECHNOLOGY,)
INC.,)
Defendant.)
)

No. 13-cv-2407-JPM-tmp

**ORDER CONCERNING MOTIONS FOR SUMMARY JUDGMENT OF
INFRINGEMENT/NON-INFRINGEMENT AND INVALIDITY AND MOTION TO
DISMISS**

This case concerns alleged infringement of United States Patent No. 6,955,677 (the “677 Patent”). Before the Court is Plaintiffs Anglefix, LLC and the University of North Carolina (collectively, “Plaintiffs”)’s Motion for Partial Summary Judgment of Infringement on Apparatus claims 11, 12, 33, 34, 47, 48, 65 and 66 of the ’677 Patent. Defendant Wright Medical Technology, Inc. opposed. (ECF No. 165.) Also before the Court is Defendant’s Motions for Summary Judgment of Invalidity (ECF No. 155) and of Non-Infringement of the ‘677 Patent (ECF No. 157). Plaintiffs filed responses in opposition. (ECF Nos. 197-98.) Defendant replied. (ECF Nos. 208-09.)

For the reasons stated below, the Court DENIES Plaintiff’s Motion for Partial Summary Judgment on Infringement; DENIES Defendant’s Motion for Summary Judgment

of Invalidity; and GRANTS in part and DENIES in part Defendant's Motion for Summary Judgment of Non-Infringement. The Court also DENIES Defendant's Motion to Dismiss.

I. BACKGROUND

A. Factual Background

This case involves the alleged infringement of the following patent on a “multi-angular plate and screw system,” developed by Dr. Laurence E. Dahmers (Compl., ECF No. 1 ¶ 5):

U.S. PATENT NUMBER	ISSUED	PATENT
6,955,677 ("the '677 Patent")	October 18, 2005	Multi-angular Fastening Apparatus and Method for Surgical Bone Screw/Plate Systems

(Id. ¶¶ 5, 8.) Plaintiff Anglefix asserts that it is the exclusive licensee of the '677 Patent. (Id. ¶ 5.) Plaintiff The University of North Carolina at Chapel Hill (“UNC”) asserts that it is the owner by assignment of the '677 Patent. (ECF No. 216 ¶ 5.) Plaintiffs allege that Defendant manufactures and distributes medical products that infringe one or more of the claims of the '677 Patent (ECF No. 1 ¶¶ 9, 12, 16). Plaintiffs also allege that Defendant contributorily infringes (id. ¶ 13) and induces others to infringe at least one claim of the '677 Patent (id. ¶ 14). The accused products are:

- CLAW II - Polyaxial Compression Plating System 3DSi
- ORTHOLOC Forefoot Fracture System
- ORTHOLOC Calcaneal Fracture System
- ORTHOLOC 3Di Foot Reconstruction System - Midfoot
- ORTHOLOC 3Di Ankle Fracture System
- ORTHOLOC 3Di Ankle Fusion Plate System
- ORTHOLOC 3Di Foot Reconstruction System

B. Procedural Background

The Complaint for this action was filed by Plaintiff Anglefix, LLC on June 11, 2013. (ECF No. 1.) On September 20, 2013, Defendant filed an Answer to the Complaint and Counterclaims. (ECF No. 7.) On April 14, 2014, Defendant filed a petition with the United States Patent and Trademark Office (“PTO”) for inter partes review (“IPR”) before the Patent Trial and Appeal Board (“PTAB”) seeking review of the ’677 Patent. (ECF No. 21-1 at 2.) Defendant’s petition was filed one week after the PTO granted IPR for the ’677 Patent in the parallel case, AngleFix Tech, LLC. v. Smith & Nephew, Inc., No. 2:13-cv-02281-JPM-tmp (W.D. Tenn.). On May 1, 2014, the Court granted the Motion to Stay in the parallel case based on the PTO’s decision to grant the petition for IPR. (AngleFix Tech, LLC. v. Smith & Nephew, Inc., No. 2:13-cv-02281-JPM-tmp (W.D. Tenn.), ECF No. 53.)

On June 26, 2014, Defendant filed a Motion to Stay Pending IPR. (AngleFix Tech, LLC v. Wright Med. Tech., Inc., No. 2:13-cv-02407-JPM-tmp (W.D. Tenn.), ECF No. 21.) On July 14, 2014, Plaintiff AngleFix LLC filed its Response to Defendant’s Motion to Stay. (ECF No. 22.) Defendant filed a Reply on July 22, 2014. (ECF No. 29.)

On July 15, 2014, both parties filed opening claim construction briefs. (ECF Nos. 23, 24.) On August 15, 2014, both parties filed responsive claim construction briefs. (ECF Nos. 32, 33.) The parties filed a Joint Claim Construction and Prehearing Statement on August 29, 2014. (ECF No. 34.) On October 7, 2014, the Claim Construction Hearing was reset to November 14, 2014. (ECF No. 39.) On the same day, Plaintiff Anglefix, LLC filed notice with the Court that the PTO had granted Defendant’s IPR with regard to twenty-seven of the thirty-nine ’677 Patent’s claims. (ECF No. 40 at 1.) On October 8, 2014, the Court ordered

the parties to file a Joint Status Report in light of the PTO’s decision to grant IPR. (ECF No. 41.) The parties filed the Joint Status Report on October 15, 2014. (ECF No. 42.) The Court granted the Motion to Stay Pending IPR on October, 22, 2014. (ECF No. 44.)

On March 29, 2015, Plaintiff Anglefix, LLC filed a Motion to allow Plaintiff to voluntarily withdraw the twenty-seven claims under IPR and to lift the stay pending IPR on the remaining twelve claims (“Motion to Lift the Stay Pending IPR”). (ECF No. 45.) Defendant filed its Response in Opposition on April 9, 2015. (ECF No. 46.) On May 6, 2015, the Court filed an Order for Clarification as to whether the withdrawal of the twenty-seven claims would be with prejudice. (ECF No. 47.) On May 21, 2015, Plaintiff Anglefix, LLC filed Notice with the Court that the withdrawal of the claims would be with prejudice. (ECF No. 48.) The Court denied the Motion to Lift the Stay Pending IPR on June 12, 2015. (ECF No. 49.) On July 6, 2015, Defendant filed the Judgment and Final Written Decision in the IPR by PTAB. (ECF No. 50.) The decision was based on the patent owner’s disclaiming of all the claims under review by PTAB. (See id.)

On July 17, 2015, Plaintiff Anglefix, LLC filed an Answer to Defendant’s counterclaims, denying Defendant’s allegations of non-infringement and invalidity. (ECF No. 53.)

On September 28, 2015, the Court held a Claim Construction Hearing. (ECF No. 67.) On October 5, 2015, Defendant filed a Supplemental Claim Construction Brief on the use of the word “permanent” in Defendant’s construction of the terms “tap,” “tapped,” or “tapping.” (ECF No. 70.) On October 12, 2015, Plaintiff filed a responsive post-hearing brief. (ECF No.

71.) On December 30, 2015, the Court entered its Order Following Claim Construction Hearing. (ECF No. 93.) The Court construed the following five terms:

CLAIM TERM	COURT'S CONSTRUCTION
Non-threaded	“without a continuous or intermittent helical feature on the inner surface of the hole which has a fixed engagement configuration with a helical feature on the surface of the screw”
Tappable contact region	“untapped region of material structured to engage the threaded head of a fastener to tap the region at a desired, non-predetermined angle”
Tap, tapped, tapping	“create a custom internal thread in a material in response to forceful insertion and rotation of a head section”
Variable insertion angle	Plain and ordinary meaning: “the angle between the screw and the bone plate can vary”
Threading	Plain and ordinary meaning: “forming or engaging a thread”

(Id. at PageIDs 2559-60.)

On April 25, 2016, Defendant filed a motion for summary judgment for lack of standing. (ECF No. 130.) Plaintiff Anglefix responded in opposition on May 11, 2016. (ECF No. 146.) Defendant filed a reply brief on May 31, 2016. (ECF No. 153.) The Court held a motion hearing on June 21, 2016. (Min. Entry, ECF No. 164.)

Plaintiff Anglefix filed a motion for summary judgment of infringement on May 23, 2016. (ECF No. 150.) Defendant filed a Motion to Strike the Expert Reports of Matthew Davies and Preclude Him from Offering Expert Testimony in this Case on May 31, 2016. (ECF No. 154.) Plaintiff filed a response in opposition on June 26, 2016. (ECF No. 170.)

On June 27, 2016, the Court denied Defendant's motion for summary judgment for lack of constitutional standing, but granted summary judgment for lack of prudential standing. (ECF No. 169.) The Court afforded Plaintiff Anglefix thirty days to join the rightful patent owner, the University of Northern Carolina ("UNC"). (*Id.* at PageID 6227.) The Court stayed the action until UNC was joined as a co-plaintiff. (*Id.*)

On July 25, 2016, AngleFix filed a motion, not to join UNC as a co-plaintiff, but to use a Waiver of Claims (hereinafter "the Waiver" or "UNC's Waiver") from UNC as a substitute for joinder. (ECF No. 171.) Defendant responded in opposition on July 27, 2016. (ECF No. 172.) On August 2, 2016, the Court denied AngleFix's motion to accept UNC's Waiver in place of the joinder of UNC as a party in the instant litigation. (ECF No. 175.)

On September 15, 2016, AngleFix filed a motion to join UNC as a co-plaintiff. (ECF No. 176.) Defendant opposed the motion on October 5, 2016. (ECF No. 180.) Anglefix filed a reply on October 14, 2016 (ECF No. 183), and Defendant filed a sur-reply with leave of Court on October 18, 2016 (ECF No. 186). On November 3, 2016, the Court held a telephonic motion hearing. (Min. Entry, ECF No. 189.)

On November 15, 2016, the Court entered an Order Granting Plaintiff's Motion to Intervene, Denying Defendant's Motion for Summary Judgment for Lack of Standing, and Lifting Stay. (ECF No. 191.)

On November 23, 2016, Defendant sought leave to file a reply in support of its Motion to Strike the Expert Reports of Matthew Davies and Preclude Him from Offering Expert Testimony in this Case (ECF No. 154). (ECF No. 195.) The Court granted leave on December 2, 2016. (ECF No. 201.) On December 5, 2016, Plaintiff, along with newly joined

co-plaintiff UNC, moved for leave to file a sur-reply to Defendant's reply concerning Expert Matthew Davies. (ECF No. 203.) Defendant filed a response in opposition to this request, stating that Plaintiffs failed to comport with multiple local rules, e.g., failure to consult prior to filing, and that Plaintiffs' motion failed to cite any authority. (ECF No. 205.)

On December 15, 2016, Defendant filed its Reply Memorandum in Support of its Motion for Summary Judgment of Non-Infringement of U.S. Patent No. 6,995,677 (ECF No. 157). (ECF No. 208.) The same day, Defendant filed its Reply to its Motion For Summary Judgment of Invalidity (ECF No. 155). (ECF No. 209.)

The Court held a Telephonic Status Conference on December 21, 2016. (Min. Entry, ECF No. 210.) The same day, the Court entered an Order Setting Schedule for Amended Complaint and Pending Motions Hearing. (ECF No. 212.) On January 18, 2017, Plaintiffs Anglefix and UNC filed an Amended Complaint, which brought the same claims as the original Complaint (ECF No. 1), but included UNC as a party. (ECF No. 216.) The Court held a motions hearing on January 31, 2017. (Min. Entry, ECF No. 219.)

On February 1, 2017, Defendant filed a Motion to Dismiss for failure to state a claim. (ECF No. 221.) Plaintiffs filed a response in opposition on February 15, 2017. (ECF No. 226.)¹

¹ The essence of Defendant's argument is that Plaintiffs' Amended Complaint fails to state a claim under authority decided since the original Complaint was filed. (See ECF No. 221-1 at PageID 7041 (citing to cases decided in 2015 and 2016 as well as the 2015 amendments to the Federal Rules of Civil Procedure).) The Court made clear during the Telephonic Status Conference, however, that fulfilling Defendant's request that Plaintiff Anglefix amend the Complaint to include UNC as a party would not start the case over. (See ECF No. 214 at PageID 6997-98.) UNC was added to overcome the Defendant's motion to dismiss for lack of standing and to assure that all necessary parties were before the Court. Defendant's motion also counters assertions made by its counsel during the conference that the only dispositive issue presented by adding UNC as a new party would relate to UNC alone, e.g., as to exceptional case and attorneys' fees. (*Id.* at PageID 6991.) Defendant's instant motion attempts to dismiss claims made by both Plaintiffs and invokes law that would require the Court

II. LEGAL STANDARD

A party is entitled to summary judgment “if the movant shows that there is no genuine dispute as to any material fact and the movant is entitled to judgment as a matter of law.” Fed. R. Civ. P. 56(a). “A fact is ‘material’ for purposes of summary judgment if proof of that fact would establish or refute an essential element of the cause of action or defense.” Bruederle v. Louisville Metro Gov’t, 687 F.3d 771, 776 (6th Cir. 2012).

“In considering a motion for summary judgment, [the] court construes all reasonable inferences in favor of the nonmoving party.” Robertson v. Lucas, 753 F.3d 606, 614 (6th Cir. 2014) (citing Matsushita Elec. Indus. Co. v. Zenith Radio Corp., 475 U.S. 574, 587 (1986)). “The moving party bears the initial burden of demonstrating the absence of any genuine issue of material fact.” Mosholder v. Barnhardt, 679 F.3d 443, 448 (6th Cir. 2012) (citing Celotex Corp. v. Catrett, 477 U.S. 317, 323 (1986)).

“Once the moving party satisfies its initial burden, the burden shifts to the nonmoving party to set forth specific facts showing a triable issue of material fact.” Mosholder, 679 F.3d at 448-49; see also Fed. R. Civ. P. 56(e); Matsushita, 475 U.S. at 587. “When the non-moving party fails to make a sufficient showing of an essential element of his case on which he bears the burden of proof, the moving parties are entitled to judgment as a matter of law and summary judgment is proper.” Martinez v. Cracker Barrel Old Country Store, Inc., 703 F.3d 911, 914 (6th Cir. 2013) (quoting Chapman v. UAW Local 1005, 670 F.3d 677, 680 (6th Cir. 2012) (en banc)); see also Kalich v. AT & T Mobility, LLC, 679 F.3d 464, 469 (6th Cir. 2012).

to view the Amended Complaint as “starting the case over” by turning to the pleadings, rather than the post-discovery, dispositive motions before the Court. Accordingly, the Court DENIES Defendant’s Motion to Dismiss the Amended Complaint (ECF No. 221).

To “show that a fact is, or is not, genuinely disputed,” both parties must do so by “citing to particular parts of materials in the record,” “showing that the materials cited do not establish the absence or presence of a genuine dispute,” or showing “that an adverse party cannot produce admissible evidence to support the fact.” Bruederle, 687 F.3d at 776 (alterations in original) (quoting Fed. R. Civ. P. 56(c)(1)); see also Mosholder, 679 F.3d at 448 (“To support its motion, the moving party may show ‘that there is an absence of evidence to support the nonmoving party’s case’” (quoting Celotex Corp., 477 U.S. at 325)). “Credibility determinations, the weighing of the evidence, and the drawing of legitimate inferences from the facts are jury functions, not those of a judge[.]” Martinez, 703 F.3d at 914 (alteration in original) (quoting Anderson v. Liberty Lobby, Inc., 477 U.S. 242, 255 (1986)).

“The court need consider only the cited materials, but it may consider other materials in the record.” Fed. R. Civ. P. 56(c)(3). “[T]he district court has no ‘duty to search the entire record to establish that it is bereft of a genuine issue of material fact.’” Pharos Capital Partners, L.P. v. Deloitte & Touche, 535 F. App’x 522, 523 (6th Cir. 2013) (per curiam) (quoting Tucker v. Tennessee, 539 F.3d 526, 531 (6th Cir. 2008), abrogation recognized by Anderson v. City of Blue Ash, 798 F.3d 338 (6th Cir. 2015)). “[J]udges are not like pigs, hunting for truffles’ that might be buried in the record.” Emerson v. Novartis Pharm. Corp., 446 F. App’x 733, 736 (6th Cir. 2011) (alteration in original) (quoting United States v. Dunkel, 927 F.2d 955, 956 (7th Cir. 1991)).

The decisive “question is whether ‘the evidence presents a sufficient disagreement to require submission to a jury or whether it is so one-sided that one party must prevail as a matter of law.’” Johnson v. Memphis Light Gas & Water Div., 777 F.3d 838, 843 (6th Cir. 2015) (quoting Anderson, 477 U.S. at 251–52). Summary judgment “‘shall be entered’

against the nonmoving party unless affidavits or other evidence ‘set forth specific facts showing that there is a genuine issue for trial.’” Rachells v. Cingular Wireless Employee Services, LLC, No. 1:08CV02815, 2012 WL 3648835, at *2 (N.D. Ohio Aug. 23, 2012) (quoting Lujan v. Nat'l Wildlife Fed'n, 497 U.S. 871, 888889, 110 S.Ct. 3177, 111 L.Ed.2d 695). “[A] mere ‘scintilla’ of evidence in support of the non-moving party’s position is insufficient to defeat summary judgment; rather, the non-moving party must present evidence upon which a reasonable jury could find in her favor.” Tingle v. Arbors at Hilliard, 692 F.3d 523, 529 (6th Cir. 2012) (quoting Anderson, 477 U.S. at 251). “[I]n order to withstand a motion for summary judgment, the party opposing the motion must present ‘affirmative evidence’ to support his/her position.” Mitchell v. Toledo Hosp., 964 F.2d 577, 584 (6th Cir. 1992) (citing Anderson v. Liberty Lobby, 106 S.Ct. 2505, 2510, 2514 (1986); Street v. J.C. Bradford & Co., 886 F.2d 1472, 1479 (6th Cir. 1989)). “[C]onclusory assertions, unsupported by specific facts made in affidavits opposing a motion for summary judgment, are not sufficient to defeat a motion for summary judgment.” Rachells, 2012 WL 3648835, at *2 (quoting Thomas v. Christ Hosp. and Med. Ctr., 328 F.3d 890, 894 (7th Cir. 2003)). Statements contained in an affidavit that are “nothing more than rumors, conclusory allegations and subjective beliefs” are insufficient. Mitchell, 964 F.2d at 584-85.

III. ANALYSIS

A. Invalidity

Defendant seeks summary judgment of invalidity based on its contention that the claims remaining after two IPRs² would have been anticipated in light of Wolter ’889 and/or

² Claims not addressed in the two prior IPRs include: 11, 12, 33, 34, 44, 47, 48, 65, 66, 73, and 74. All claims except claim 47 are dependent claims.

obvious in light of prior art reference Wolter '889 in view of Wolter '117. According to Defendant,

[t]he only patent claims for which the Wright IPR was not instituted were those that further required [the ‘tappable contact region’ to include] ‘a plurality of protrusions’ and ‘a plurality of interstices between the protrusions.’ Thus, the question now before the Court is simple: Is a system for affixing a bone screw off-axis [into a tappable region] using a plurality of ‘protrusions’ with ‘a plurality of interstices between the protrusions’ also in the prior art? The answer is an overwhelming YES. The claimed system is anticipated by and/or obvious over at least two prior art references.

(ECF No. 155-1 at PageID 5104; see id. at PageID 5105.) Defendant further asserts that “Wolter '889 discloses a bone plate including ‘at least one, at least partially circumferential projection’ that ‘in contrast to a helical circumferential thread – can also be arranged symmetrically on a circular line around the hole axis,’” and that one skilled in the art “would have recognized that the ‘at least one’ language . . . contemplates a plurality of protrusions being arranged circumferentially.” (Id. at PageID 5111.) Defendant also contends that these projections are separated by spaces, e.g., interstices, which do not form a thread. (Id. at PageID 5112.) In short, Defendant argues that “Wolter '889 discloses a plurality of protrusions and a plurality of interstices between the protrusions in a tappable contact region.” (Id. at PageID 5113.)

Plaintiffs contend the PTAB squarely addressed this issue during IPR proceedings. Specifically, Plaintiff highlights that the PTAB examined Wolter '889 in light of other references and declined to institute *inter partes* review because Defendant had not established a reasonable likelihood that the “plurality of protrusions” and “plurality of interstices between

the protrusions” requirements of the remaining claims were disclosed. (ECF No. 199 at PageID 6611.)³

Patents are presumed to be valid. 35 U.S.C. § 282(a). A party challenging the validity of a patent bears the burden of proving invalidity by clear and convincing evidence.

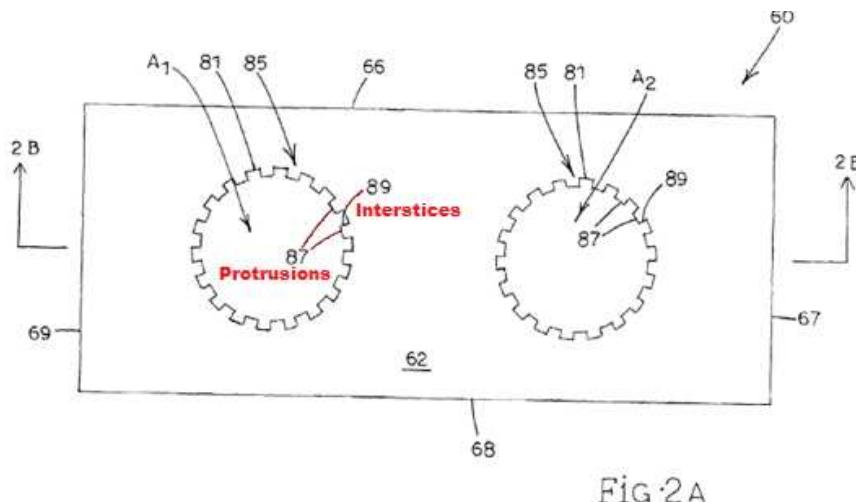
Microsoft Corp. v. I4I Ltd. P'ship, 564 U.S. 91, 102 (2011). In the instant case, Defendant challenges the validity of the '677 Patent on anticipation and obviousness grounds.

An anticipation inquiry involves two steps. First, the court must construe the claims of the patent in suit as a matter of law. Second, the finder of fact must compare the construed claims against the prior art. In re Montgomery, 677 F.3d 1375, 1379 (Fed. Cir. 2012). “To anticipate a claim, a single prior art reference must expressly or inherently disclose each claim limitation.” Finisar Corp. v. DirecTV Grp. Inc., 523 F.3d 1323, 1334–35 (Fed. Cir. 2008) (quoting Celeritas Techs., Ltd. v. Rockwell Int'l Corp., 150 F.3d 1354, 1361 (Fed. Cir. 1998)). Anticipation requires that the reference not only describe the elements of the claimed invention but also mirror the elements’ arrangement or combination in the claim. Enfish, LLC v. Microsoft Corp., 822 F.3d 1327, 1343 (Fed. Cir. 2016) (internal quotations omitted); Net MoneyIN, Inc. v. VeriSign, Inc., 545 F.3d 1359, 1370 (Fed. Cir. 2008). The court’s anticipation analysis must also consider the claim limitations and the patent specification context of which the claims arise. In re Schreiber, 128 F.3d 1473, 1481 (Fed. Cir. 1997); Glaverbel Societe Anonyme v. Northlake Mktg. & Supply, Inc., 45 F.3d 1550, 1554 (Fed. Cir. 1995). Importantly, the prior art need not use identical words as those recited in the claims to

³ The PTAB’s decision not to institute an IPR proceeding has no preclusive effect on a defendant’s ability to argue for invalidity on the same grounds in district court. See HP Inc. v. MPHJ Tech. Inv., LLC, 817 F.3d 1339 (Fed. Cir. 2016); Shaw Indus. Grp., Inc. v. Automated Creel Sys., Inc., 817 F.3d 1293, 1300 (Fed. Cir.), cert. denied, 137 S. Ct. 374 (2016). Nonetheless, the parties may be bound by the positions taken in the PTAB, and the PTAB’s reasoning may be persuasive to issues before the district court.

be anticipating. Structural Rubber Prods. Co. v. Park Rubber Co., 749 F.2d 707, 716 (Fed. Cir. 1984).

Two central elements of all the claims at issue are the “plurality of protrusions” and “plurality of interstices between the protrusions” requirements. The ’677 Patent refers to these protrusions and interstices in the specification. The Court adopted the parties’ constructions for these terms, finding “interstices” to mean “spaces” and “protrusion” to mean “material that extends out from the surface and does not form a thread.” (ECF No. 93 at PageIDs 2539-40.) The Court further adopted the parties construction of “disposed on the inside surface” to mean “located at or on the inside surface of the hole.” (Id.)



(’677 Patent, ECF No. 23-1, Fig. 2A (color and label added).) As illustrated in Figure 2A, apertures A1 and A2 have protrusions 87 around the circumference of the aperture that extend towards the hole’s center; the protrusions are separated by interstices 89.

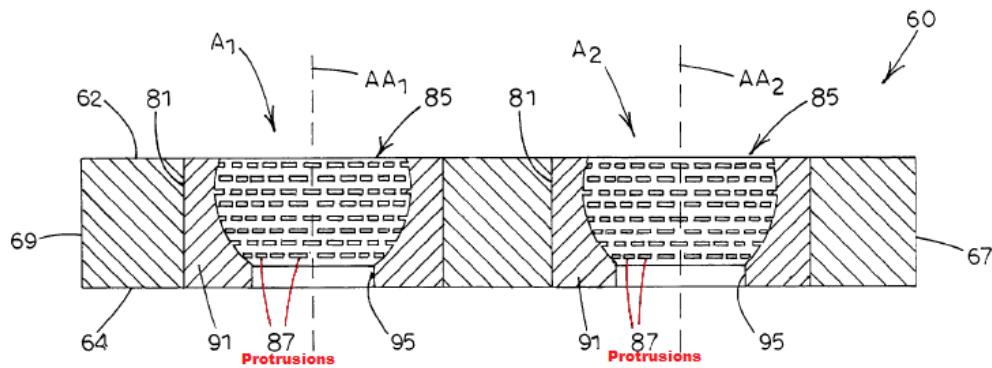


Fig.2B

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Patent, ECF No. 23-1, Fig. 2B (color and label added.) Figure 3 further illustrates the plurality of protrusions 87 inside the surface of apertures A1 and A2. The patent specification also describes that the “[p]rotrusions 87 can be provided in any protruding form, such as pegs, bristles or tines . . . the size of individual protrusions 87, are not limited by the invention, so long as the matrix formed on the inside surface 81 renders contact region 85 tappable.” ('677 Patent, ECF No. 23-1, col. 7, ll. 23-24, 38-41.)

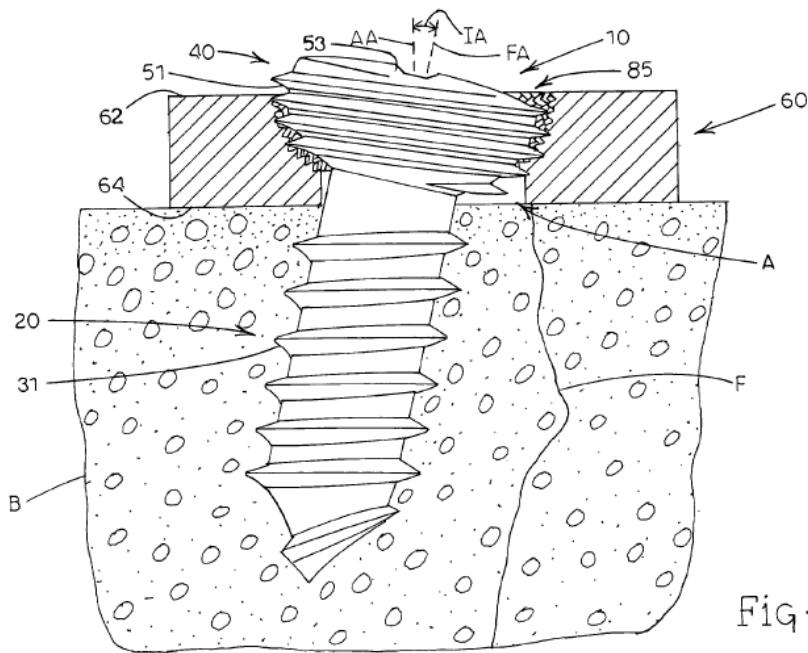


Fig.3

(’677 Patent, ECF No. 23-1, Fig. 3.) The protrusions’ purpose, the patent specification asserts, become clear when the threaded portion 51 of the head section 40 of fastener 10 is driven into the aperture A, and thereby “caus[ing] [the] series of protrusions 87 to contact second thread 51 and maintain fastener 10 at the desired insertion angle IA.” (’677 Patent, ECF No. 23-1, col. 9, ll. 35-40, 50-60.)

Defendant argues that because “Wolter ’899 discloses a bone plate including ‘at least one, at least partially circumferential projection’ that ‘in contrast to a helical circumferential thread – can also be arranged symmetrically on a circular line around the hole axis,’” “[a] person of ordinary skill in the art would have recognized that the ‘at least one’ language used in Wolter ’899 contemplates a plurality of protrusions being arranged circumferentially.” (ECF No. 155-1 at PageID 5111 (quoting Wolter ’899 at 2:43-3:40, 4:25-5:2).) The Court is unpersuaded by Defendant’s argument.

The Court is persuaded by the PTAB’s reasoning in IPR2014-00626. The projection embodiments Wolter ’899 discloses are either “a burr or lip.” (Wolter ’899, ECF No. 156-2, col. 4, l. 40; Fig. 2.) Such projections do not constitute protrusions in the ’677 Patent because they are unaltered ridges. (’677 Patent, ECF No. 23-1, col. 7, ll. 54-56; Wright IPR, ECF No. 199-1 at PageID 6637 (finding same).) Neither ridges nor grooves constitute protrusions under the ’677 Patent, as the specification discloses that protrusions are formed by “cutting transversely through the ridges to discretize the ridges into protrusions.” (’677 Patent, ECF No. 23-1, col. 7, ll. 54-56.) Moreover, intrinsic evidence does not support Defendant’s construction of the “at least one” language as disclosing a plurality of protrusions. Nothing in

Wolter '889 clearly and convincingly discloses anything more than projections that form a ridge. Accordingly, the Court finds that a genuine issue of fact remains as to whether there is clear and convincing evidence that Wolter '889 discloses a plurality of protrusions. The Court, therefore, DENIES summary judgment on the issue of invalidity for anticipation by Wolter '889.

Defendant also contends that Wolter '117 anticipates the claims at issue. (ECF No. 209 at PageID 6947.) Defendant fails, however, to identify any language in Wolter '117 that discloses a plurality of protrusions. Rather, Defendant contends that if Plaintiffs' argument for infringement—that broken helical ridges are not threads—stands, then Wolter '117 is invalidating because intermitted helical threads will create protrusions as defined in the '677 Patent. (ECF No. 155-1 at PageID 5120.) The Court having rejected Plaintiffs' argument in its previous Order, finds no clear and convincing evidence that would establish that Wolter '117 discloses a plurality of protrusions. The Court, therefore, DENIES summary judgment on the issue of invalidity for anticipation by Wolter '117.

Defendant also argues that Wolter '889 renders the claims at issue obvious. (ECF No. 209 at PageID 6945.)

A patent is obvious if “a skilled artisan would have been motivated to combine the teachings of the prior art references to achieve the claimed invention, and that the skilled artisan would have had a reasonable expectation of success in doing so.” Procter & Gamble Co. v. Teva Pharm. USA, Inc., 566 F.3d 989, 994 (Fed. Cir. 2009) (internal quotation marks omitted).

NantKwest, Inc. v. Lee, No. 2015-2095, 2017 WL 1735330, at *2 (Fed. Cir. May 3, 2017). For the reasons stated above, the Court does not find that there is clear and convincing evidence that Wolter '889 renders the claims at issue obvious. Accordingly, the Court DENIES summary judgment on the issue of invalidity for obviousness by Wolter '889.

In sum, the Court DENIES summary judgment on the issue of invalidity in favor of Defendant.

B. Infringement/Non-Infringement

Plaintiffs move for summary judgment of infringement for apparatus claims 11, 12, 33, 34, 47, 48, 65 and 66 against seven of Defendant's products.⁴ (ECF No. 150-1 at PageID 4543.) Defendant seeks summary judgment of non-infringement as to the apparatus claims because Defendant's accused products are threaded and do not have a "tappable contact region." (ECF No. 157-1 at PageID 5314.)⁵ Defendant further seeks summary judgment on non-infringement as to the method claims brought in Plaintiffs' Complaint. (Id. at PageID 5329.) Defendant argues that Plaintiffs' "claims of indirect infringement of the remaining method claims (claims 43, 44, 73, and 74) fail for at least two reasons[:] First, and as discussed above, Wright Medical's Accused Products are threaded and, therefore, Anglefix cannot satisfy the prerequisite burden of proving direct infringement. . . . [Second,] the factual record is completely devoid of any evidence establishing Wright Medical's specific intent to encourage customers to infringe the '677 Patent, or of a surgeon actually having directly infringed the '677 Patent." (Id.)

⁴ The accused products include:

1. CLAW II - Polyaxial Compression Plating System 3DSi
2. ORTHOLOC Forefoot Fracture System
3. ORTHOLOC Calcaneal Fracture System
4. ORTHOLOC 3Di Foot Reconstruction System - Midfoot
5. ORTHOLOC 3Di Ankle Fracture System
6. ORTHOLOC 3Di Ankle Fusion Plate System
7. ORTHOLOC 3Di Foot Reconstruction System

(ECF No. 150-1 at PageID 4543.)

⁵ In its Order Following Claim Construction Hearing, the Court construed "non-threaded" as "without a continuous or intermittent helical feature on the inner surface of the hole which has a fixed engagement configuration with a helical feature on the surface of a screw" and "tappable contact region" as "untapped region of material structured to enable a threaded fastener to tap the region at a desired, non-predetermined angle." (ECF No. 93 at PageIDs 2545, 2551.)

“Evaluation of summary judgment of noninfringement is a two-part inquiry: first, a court construes the scope and meaning of the asserted patent claims, and then compares the construed claims to the accused product or process.” Medgraph, Inc. v. Medtronic, Inc., 843 F.3d 942, 949 (Fed. Cir. 2016) (citing Abbott Labs. v. Sandoz, Inc., 566 F.3d 1282, 1288 (Fed. Cir. 2009)). Infringement can be either direct or indirect.

1. Direct/Literal Infringement

“To prove literal infringement, a plaintiff must show that the accused device contains each and every limitation of the asserted claims.” Presidio Components, Inc. v. Am. Tech. Ceramics Corp., 702 F.3d 1351, 1358 (Fed. Cir. 2012) (citing Uniloc USA, Inc. v. Microsoft Corp., 632 F.3d 1292, 1301 (Fed. Cir. 2011)). If any claim is missing from the accused device, there is no literal infringement as a matter of law. Bayer AG v. Elan Pharm. Research Corp., 212 F.3d 1241, 1247 (Fed. Cir. 2000).

Each apparatus claim at issue requires a non-threaded aperture. (See ’677 Patent, ECF No. 23-1, claims 11, 12, 33, 34, 47, 48, 65 and 66.) Plaintiff contends that the accused products are non-threaded because “a threaded hole does not allow the surgeon a choice of insertion angles.” (ECF No. 150-1 at PageID 4544.) As discussed in the Court’s previous Order, this argument conflates the meaning of tappable and threaded. (See ECF No. 240.) A hole is threaded when a helical path, or partial path, could mate with a threaded screw or fastener (thereby having “a fixed engagement configuration”). (See ’677 Patent, ECF No. 23-1, col. 1 ll. 41-44, 55-59, col. 6 ll. 63-65.) A hole is tappable if it permits insertion at multiple angles. (See ECF No. 93 at PageID 2547.) A threaded, non-tappable hole would not allow the surgeon a choice of insertion angles, while a threaded, tappable hole would allow the

surgeon to choose various insertion angles. Accordingly, to the extent that Plaintiffs establish that the accused products are ‘non-threaded’ under a misinterpretation of the Court’s claim construction, the Court DENIES summary judgment in favor of Plaintiffs for infringement; they have failed to meet their burden to show no genuine dispute of fact remained as to whether the accused products were non-threaded.

Defendant argues the accused products are threaded, both structurally and functionally. (ECF No. 157-1 at PageID 5319.) Defendant specifically contends the accused products “include intermittent helical features on the inner surfaces of the bone plate apertures” and “these helical features have a fixed engagement configuration with a helical feature on the surface of the screw.” (Id.) Defendant asserts that it is undisputed that the accused products structurally include helical features on the inner surface of the aperture. (Id. at 5320.) **Plaintiffs agree.** (ECF No. 197-5 ¶ 14.)

Defendant supports its assertion that these helical features function as a thread through the declarations of Plaintiffs’ expert witness Dr. Matthew Davies and Defendant’s expert witness Dr. Sayed A. Nassar. Dr. Davies opined that when a screw was inserted coaxially with the accused products, it was constrained in an “engagement similar to a normal engagement of a screw with a threaded hole as would be understood by a person of ordinary skill in the art[.]” (Davies Dep., ECF No. 157-5 at PageIDs 5411:22 - 5412:10.) Nevertheless, Plaintiffs contend that the accused products do not function as threads because they permit insertion at various angles. (ECF No. 198 at PageID 6582.) This argument, as addressed above, is unavailing. Defendant’s expert Dr. Nassar opined

that the intermittent helical features on the inner surface of the hole continued to function as a thread because as the screw was rotated relative to the plate,

the screw was moved along the axis of the hole of the bone plate. This physical interaction between the helical feature on the screw and the intermittent helical features on the inner surface of the bone plate was consistent with a threaded engagement as would be understood by a person of ordinary skill in the art. . . .

(Nassar Report, ECF No. 157-3 ¶ 37.)

There appears to be no genuine issue as to whether a screw's threaded head mates with the intermitted helical features of the accused products when inserted coaxially. This mating constitutes a fixed engagement configuration between the helical features and the screw's surface, and thus the accused products are threaded. Accordingly, the Court finds no genuine issue of material fact remains as to whether the accused products contains each and every limitation of the asserted claims, because none of the accused products are non-threaded. The Court, therefore, GRANTS summary judgment of non-infringement of the apparatus claims in favor of Defendant.

2. Indirect/Induced Infringement

Pursuant to 35 U.S.C. § 271(b), [w]hoever actively induces infringement of a patent shall be liable as an infringer. Importantly, liability for induced infringement under § 271(b) must be predicated on direct infringement. The patentee must also show that the alleged infringer possessed the requisite intent to induce infringement, which we have held requires that the alleged infringer knew or should have known his actions would induce actual infringements.

Eli Lilly & Co. v. Teva Parenteral Medicines, Inc., 845 F.3d 1357, 1363–64 (Fed. Cir. 2017) (internal citations and quotation marks omitted). “Mere ‘knowledge of the acts alleged to constitute infringement’ is not sufficient.” Id. at 1368 (quoting DSU Med. Corp. v. JMS Co., 471 F.3d 1293, 1305 (Fed. Cir. 2006)). In establishing the predicated direct infringement, a patentee need not present direct evidence of infringement, because a finding that the accused device contains all the limitations of the asserted claims may be done with direct or

circumstantial evidence. 02 Micro Int'l Ltd. v. Beyond Innovation Tech. Co., Ltd., 449 Fed. Appx 923, 928 (Fed. Cir. 2011) (citing Lucent Techs., Inc. v. Gateway, Inc., 580 F.3d 1301, 1318 (Fed. Cir. 2009); Symantec Corp. v. Computer Assocs. Int'l, Inc., 522 F.3d 1279, 1293 (Fed. Cir. 2008)). For example, “use of instruction manuals [may be used] to demonstrate direct infringement by customers in the context of induced infringement.” Tinnus Enterprises, LLC v. Telebrands Corp., 846 F.3d 1190, 1204 (Fed. Cir. 2017) (citing Golden Blount, Inc. v. Robert H. Peterson Co., 438 F.3d 1354, 1362–63 (Fed. Cir. 2006)).

Defendant contends that because the accused products are threaded, there can be no finding of indirect/induced infringement of the ’677 Patent method claims. The method claims at issue, however, do not require a non-threaded aperture as an element.

Claim 43 states:⁶

⁶ Claim 43 depends on independent Claim 39. Claim 39 does not require the aperture of the receiving member to be non-threaded, rather it states:

39. A method for affixing a fastener to a fastener receiving member at a desired orientation, comprising the steps of:

- (a) providing a fastener comprising an elongate section and an adjoining head section disposed along a fastener axis, the head section comprising a thread;
- (b) providing a fastener receiving member comprising first and second opposing major surfaces, an inside surface extending between the first and second major surfaces and defining an aperture generally coaxially disposed about an aperture axis, and a non-rotatable tappable contact region disposed on the inside surface of the aperture, the tappable contact region having an inside diameter large enough to permit the elongate section of the fastener to pass therethrough at a variable insertion angle defined between the fastener axis and the aperture axis, and the contact region is formed so as to allow for being tapped by the thread of the head section to rigidly affix the head section to the tappable contact region at a selected one of a plurality of different angles that can be selectively formed between the axis of the fastener and the aperture axis;
- (c) selecting one of the plurality of different insertion angles at which the fastener is to be inserted in relation to the fastener receiving member;
- (d) inserting the elongate section through the aperture until the thread of the head section contacts the non-rotatable tappable contact region; and
- (e) tapping the fastener into the receiving member such that the fastener is rigidly oriented at the selected insertion angle by threading the thread of the

The method according to claim 39 wherein the tappable contact region comprises a plurality of protrusions extending generally radially inwardly from the inside surface and a plurality of interstices between the protrusions, and tapping the fastener comprises driving the thread of the head section through a series of the interstices and into contact with a series of the protrusions.

('677 Patent, ECF No. 23-1, Claim 43.)

Claim 44 states:

The method according to claim 43 wherein driving the thread of the head section into contact with the series of protrusions deforms at least some of the protrusions.

('677 Patent, ECF No. 23-1, Claim 44.)

Claim 73 states:⁷

The method according to claim 71 wherein the tappable contact region comprises a plurality of protrusions extending generally radially inwardly from the inside surface and a plurality of interstices between the protrusions, and

head section into the non-rotatable tappable contact region while the fastener is oriented at the selected insertion angle.

('677 Patent, ECF No. 23-1, Claim 39.)

⁷ Claim 73 depends from independent Claim 71. Claim 71 does not require the aperture of the receiving member to be non-threaded, rather it states:

71. A method for affixing a fastener to a fastener receiving member at a desired orientation, comprising the steps of:

- (a) providing a fastener comprising a threaded elongate section and an adjoining head section disposed along a fastener axis, the head section comprising a thread;
- (b) providing a fastener receiving member comprising first and second opposing major surfaces, an inside surface extending between the first and second major surfaces and defining an aperture generally coaxially disposed about an aperture axis, and a tappable contact region disposed on the inside surface;
- (c) selecting an insertion angle at which the fastener is to be inserted in relation to the fastener receiving member, wherein the insertion angle is defined between the fastener axis and the aperture axis;
- (d) inserting the elongate section through the aperture until the thread of the head section contacts the tappable contact region;
- (e) tapping the fastener into the receiving member such that the fastener is oriented at the selected insertion angle by threading the thread of the head section into the tappable contact region while the fastener is oriented at the selected insertion angle; and
- (f) comprising the step of placing one of the major surfaces of the receiving member against bone material, and inserting the elongate section of the fastener into the bone material by threading the elongate section into the bone material.

tapping the fastener comprises driving the thread of the head section through a series of the interstices and into contact with a series of the protrusions.

('677 Patent, ECF No. 23-1, Claim 73.)

Claim 74 states:

The method according to claim 73 wherein driving the thread of the head section into contact with the series of protrusions deforms at least some of the protrusions.

('677 Patent, ECF No. 23-1, Claim 74.)

Whether the accused products' apertures are threaded, therefore, is not dispositive on induced infringement of the method claims in the instant case. Rather, whether the apertures have protrusions is the dispositive issue. Nothing in the patent in suit or in this Court's construction equates protrusions with a non-threaded aperture. "Protrusions" were construed to mean "material that extends out from a surface and does not form a thread." (ECF No. 93 at PageID 2539.) "Non-threaded" was construed to mean "without a continuous or intermittent helical feature on the inner surface of the hole which has a fixed engagement configuration with a helical feature on the surface of the screw." (*Id.* at PageID 2561.) Read together, it is possible for an aperture to have both protrusions and be threaded. The protrusions would not form the thread, but their existence would not necessarily foreclose the existence of a thread. Accordingly, the Court rejects Defendant's argument that because the accused products are non-threaded there can be no induced infringement of the method claims.

The Court is without adequate facts to determine whether Defendant's products are both threaded and contain protrusions. If such factual evidence existed, the trier of fact could reasonably find that circumstantial evidence, such as Defendant's various instruction manuals

teaching customers to insert screws at various angles, supports a finding of direct infringement of the method claims for induced infringement purposes. Tinnus Enterprises, LLC v. Telebrands Corp., 846 F.3d 1190, 1204 (Fed. Cir. 2017). The factual inadequacy on this material issue prevents the Court from ruling in Defendant's favor. The Court, therefore, DENIES Defendant's Motion for Summary Judgment as to Non-Infringement as to the method claims.

IV. CONCLUSION

For the reasons stated above, the Court DENIES Plaintiff's Motion for Partial Summary Judgment on Infringement; DENIES Defendant's Motion for Summary Judgment of Invalidity; and GRANTS in part and DENIES in part Defendant's Motion for Summary Judgment of Non-Infringement. The Court specifically GRANTS Defendant's Motion for Summary Judgment of Non-Infringement as to the apparatus claims and DENIES the motion as to the method claims. The Court also DENIES Defendant's Motion to Dismiss.

IT IS SO ORDERED, this 13th day of July, 2017.

/s/ Jon P. McCalla

JON P. McCALLA
UNITED STATES DISTRICT COURT JUDGE